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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,504	04/02/2007	Michael C. Brandl	DP-311159	3923

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EXAMINER	
ROJAS, BERNARD	

ART UNIT	PAPER NUMBER
2832	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No.	Applicant(s)	
	10/575,504	BRANDL ET AL.	
	Examiner	Art Unit	
	BERNARD ROJAS	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-10* is/are rejected.

7)☒ Claim(s) *3,4 and 11-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Peppard (US 6,978,694).

Claim 1, Peppard discloses a control cartridge comprising (handle bar throttle controller, Fig. 1): a first member that carries a Hall effect sensor (housing 12, Fig. 1, wherein the a Hall effect sensor 48 is within the housing, see Col. 4, lines 42-47), a second member (arrangement comprising the shaft 20, the cam 30 and the corresponding follower, see Figs. 1-2, and Col. 3, lines 64 – Col. 4, line 8) that carries a magnet (magnet 50) and that rotates and translates with respect to the first member (elongated shaft 20 is supported within the housing 12 for relative rotation about a longitudinal axis 22, Col. 3, lines 55-57; wherein a moving component, namely magnet 128, moves axially with cam 130 and as the twist grip is rotated by the user, cam 130 translates axially, Col. 7, lines 1-7), means to position the first member with respect to the second member so that the Hall effect sensor senses a predetermined magnetic flux density of the magnet (sensor 122 detects axial movement of the cam, Col. 7, lines 13-

15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined), means to change the magnetic flux density sensed by the Hall effect sensor in one direction responsive to rotation of the second member with respect to the first member in a first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and means to change the magnetic flux density sensed by the Hall effect sensor in an opposite direction responsive to translation of the second member with respect to the first member (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a second direction, opposite the first direction, to generate a second torque characteristic, Col. 2, lines 6-10).

Claim 2, Peppard discloses the control cartridge as defined in claim 1 wherein the magnetic flux density sensed by the Hall effect sensor (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined) is increased responsive to the rotation of the second member with respect the first member in the first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and

the magnetic flux density sensed by the Hall effect sensor is decreased responsive to translation of the second member with respect to the first member (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a second direction, opposite the first direction, to generate a second torque characteristic, Col. 2, lines 6-10). Since movement of the magnet changes the flux density, movement in one direction causes an increase in flux density while movement in another direction causes a decrease in flux density.

Claim 5, Peppard discloses a control cartridge comprising (handle bar throttle controller, Fig. 1): a circuit board (PC board 126 within the housing, Fig. 10) that includes a Hall effect sensor, a housing for fixing the position of the Hall effect sensor (housing 12, Fig. 1, wherein the a Hall effect sensor 48 is within the housing, see Col. 4, lines 42-47); the housing having a cam (cam and follower arrangement disposed about the shaft 20, Col. 3, lines 65-66 wherein the shaft is within the housing), and a shaft (shaft 20) that carries a magnet (magnet 50) and that rotates and translates with respect to the housing (arrangement comprising the shaft 20, the cam 30 and the corresponding follower, see Figs. 1-2, and Col. 3, lines 64 – Col. 4, line 8; elongated shaft 20 is supported within the housing 12 for relative rotation about a longitudinal axis 22, Col. 3, lines 55-57; wherein a moving component, namely magnet 128, moves axially with cam 130 and as the twist grip is rotated by the user, cam 130 translates axially, Col. 7, lines 1-7); the shaft having a cam follower that engages the cam and translates the shaft with respect to the housing when the shaft is rotated with respect to the housing in one

direction but not in an opposite direction (movement of the follower with respect to the shaft's rotation, Col. 4, lines 2-16).

Claim 6, Peppard discloses a control handle for a vehicle that is steered by a tubular handle bar and that has an engine control device (handle bar throttle controller, Fig. 1; see Col. 3, lines 45-55) and a cruise control device (used for providing cruise control signal, Col. 6, lines 40-41), the control handle comprising: a control cartridge disposed in an open end of the tubular handle bar, and a hand grip rotatably mounted on the exterior of the handle bar adjacent the open end (grip members 26 and 28), the control cartridge including a circuit board (PC board 126 within the housing, Fig. 10) upon which a Hall effect sensor is mounted, a housing receiving the circuit board and fixing the position of the Hall effect sensor (housing 12, Fig. 1, wherein the a Hall effect sensor 48 is within the housing, see Col. 4, lines 42-47); the housing being non-rotatably mounted in the end of a tube (generally cylindrical housing 12 that is adapted to be nonrotatably received, Col. 3, lines 48-50) and having a cam (arrangement comprising the shaft 20, the cam 30 and the corresponding follower, see Figs. 1-2, and Col. 3, lines 64 – Col. 4, line 8), a shaft inside the tube (shaft 20) that carries a magnet (magnet 50) and that rotates and translates with respect to the housing (elongated shaft 20 is supported within the housing 12 for relative rotation about a longitudinal axis 22, Col. 3, lines 55-57; wherein a moving component, namely magnet 128, moves axially with cam 130 and as the twist grip is rotated by the user, cam 130 translates axially, Col. 7, lines 1-7); the shaft having a cam follower that engages the cam and translates the shaft with respect to the housing when the shaft is rotated with respect to the

housing in one direction but not in an opposite direction (movement of the follower with respect to the shaft's rotation, Col. 4, lines 2-16), a collar non-rotatably mounted in an opposite end of the tube (shown in Figure 8 as switch housing 106), a spring disposed in the tube and biasing the shaft rotationally so that the cam follower engages the cam (coil spring 44, see Col. 4, lines 10-33); the collar being disposed in the tubular handle bar snuggly (as can be seen in Figure 8), and the shaft having an end that protrudes out of the collar (part of handle bar 16, which comprises the shaft, protrudes out of the collar 106); the end being non-rotatably attached to the hand grip.

Claim 7, Peppard discloses a control cartridge comprising (handle bar throttle controller, Fig. 1): a first member that carries a Hall effect sensor (housing 12, Fig. 1, wherein the a Hall effect sensor 48 is within the housing, see Col. 4, lines 42-47); a second member (arrangement comprising the shaft 20, the cam 30 and the corresponding follower, see Figs. 1-2, and Col. 3, lines 64 – Col. 4, line 8) that carries a magnet (magnet 50) and that rotates and translates with respect to the first member (elongated shaft 20 is supported within the housing 12 for relative rotation about a longitudinal axis 22, Col. 3, lines 55-57; wherein a moving component, namely magnet 128, moves axially with cam 130 and as the twist grip is rotated by the user, cam 130 translates axially, Col. 7, lines 1-7),a cam carried by one of the first and second members and a cam follower carried by another of the first and second members (cam and follower arrangement disposed about the shaft 20, Col. 3, lines 65-66) and biased into engagement with the cam to position the first member with respect to the second member so that the Hall effect sensor senses a predetermined magnetic flux density of

the magnet (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined), means to change the magnetic flux density sensed by the Hall effect sensor in one direction responsive to rotation of the second member with respect to the first member in a first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and means to change the magnetic flux density sensed by the Hall effect sensor in an opposite direction responsive to translation of the second member with respect to the first member (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a second direction, opposite the first direction, to generate a second torque characteristic, Col. 2, lines 6-10).

Claim 8, Peppard discloses the control handle as defined in claim 7 wherein the magnetic flux density sensed by the Hall effect sensor (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined) is increased responsive to the rotation of the second member with respect the first member in the first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be

rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and the magnetic flux density sensed by the Hall effect sensor is decreased responsive to translation of the second member with respect to the first member (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet; movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam and the twist grip is rotate by the user and the cam 130 translates axially, Col. 7, lines 1-3). Since movement of the magnet changes the flux density, movement in one direction causes an increase in flux density while movement in another direction causes a decrease in flux density.

Claim 9, Peppard discloses the control cartridge as defined in claim 7 including a cam carried by one of the first and second members and a cam follower carried by another of the first and second members (cam and follower arrangement disposed about the shaft 20, Col. 3, lines 65-66), the cam follower moving away from the cam responsive to rotation of the second member with respect to the first member in the first direction and engaging the cam and translating the another of the first and second members with respect to the one of the first and second members responsive to rotation of the second member with respect to the first member in an opposite direction (movement of the follower with respect to the shaft's rotation, Col. 4, lines 2-16).

Claim 10, Peppard discloses the control cartridge as defined in claim 9 wherein the magnetic flux density sensed by the Hall effect sensor (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the

cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined) is increased responsive to the rotation of the second member with respect the first member in the first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and the magnetic flux density sensed by the Hall effect sensor is decreased responsive to translation of the second member with respect to the first member (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a second direction, opposite the first direction, to generate a second torque characteristic, Col. 2, lines 6-10). Since movement of the magnet changes the flux density, movement in one direction causes an increase in flux density while movement in another direction causes a decrease in flux density.

Allowable Subject Matter

Claims 3, 4 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 03/24/2009 have been fully considered but they are not persuasive.

Applicant argues that Claim 1 specifically calls for a magnet that both rotates and translates with respect to the first member. Such a limitation is clearly absent from the Peppard reference. However, Applicant agrees that in Fog. 10, Peppard discloses linear rotation while Col. 7, line 13 of Peppard teaches axial movement. Therefore, it is apparent that the system of Peppard has the ability to handle both rotation and translation of its member. The arguments and response for Claim 1 also apply to Claim 5, 6, and 7.

Regarding Claim 2, Applicant argue that the reference relied upon does not teach the limitations of Claim 2. However, the examiner would like to maintain that Peppard discloses the control cartridge as defined in claim 1 wherein the magnetic flux density sensed by the Hall effect sensor (sensor 122 detects axial movement of the cam, Col. 7, lines 13-15; wherein the magnet moves axially with the cam, Col. 7, lines 1-2, thus the sensor also detects the movement of the magnet and in detecting the magnet's movement, the flux density is determined) is increased responsive to the rotation of the second member with respect the first member in the first direction (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a first direction to generate a first torque characteristic, Col. 2, lines 3-6), and the magnetic flux density sensed by the Hall effect sensor is decreased responsive to translation of the second

member with respect to the first member (movement of the magnet causes a change in the flux density, wherein the magnet moves axially with the cam; and the shaft, which comprises the cam, may be rotated in a second direction, opposite the first direction, to generate a second torque characteristic, Col. 2, lines 6-10). Since movement of the magnet changes the flux density, movement in one direction causes an increase in flux density while movement in another direction causes a decrease in flux density.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BERNARD ROJAS whose telephone number is (571)272-1998. The examiner can normally be reached on M and W-F, 10:00-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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